

IN THE CLAIMS

The status of the claims are as follows:

Claims 1-10: (Canceled).

11. (Currently Amended) A modified sarcosine oxidase wherein said enzyme
- (a) hydrolyzes 1 mol of sarcosine to produce 1 mol of glycine and 1 mol of formaldehyde;
 - (b) has an ~~optional~~ optimal pH of about 6.5;
 - (c) does not change its activity after being incubated at pH of between 6.0 and 11.0 for 5 hours at 25°C;
 - (d) has an ~~optional~~ optimal temperature of 60°C;
 - (e) is stable after ~~ten-minute heat~~ heating for 10 minutes in 50 mM potassium phosphate buffer and at pH 7.5, ~~up to~~ at about 50°C;
 - (f) retains 90% of activity after 5 hours at pH 6.0 and 25°C and it retains 70% activity after 17 hours at pH 6.0 and 25°C;
 - (g) has a molecular weight of approximately 43,000 (SDS-PAGE); and
 - (h) has Km value of 5.9 mM at pH 6.5; and
- wherein said modified sarcosine oxidase is encoded by a DNA derived by modifying a DNA having the nucleotide sequence represented by SEQ ID NO:2.

12. (Currently Amended) A modified sarcosine oxidase of the following (a), ~~or (b)~~:

(a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 1; ~~or~~

~~(b) a protein consisting of an amino acid sequence wherein one or some amino acid(s)~~
~~are deleted, substituted, or added from the amino acid sequence represented by SEQ ID NO:~~
~~1, and which has sarcosine oxidase activity.~~

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SUPPORT FOR THE AMENDMENTS

The amendments to the claims are supported by the specification. Accordingly, no new matter is believed to have been added to the present application by the amendments submitted above.